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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,593	04/13/2001	Martin Philip Usher	11696. 0059	5641

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STEPTOE & JOHNSON LLP
1330 CONNECTICUT AVENUE, N.W.
WASHINGTON, DC 20036

EXAMINER

MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,593

Applicant(s)

USHER ET AL.

Examiner

Brandon J Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

Abstract

The abstract of the disclosure is objected to because of undue length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 25 is rejected under 35 U.S.C. 102(e) as being anticipated by Horrер.

Regarding claim 25 Horrер teaches a method for receiving aboard an aircraft incoming calls for a cellular telephone user aboard the aircraft (see col. 2, lines 25-29 & 60-64). Horrер teaches receiving, from the cellular telephone aboard the aircraft, user data associated with the cellular telephone having an associated cellular telephone number (see col. 2, lines 52-65 and col. 4, lines 57-63). Horrер teaches associating a temporary identification code with the cellular telephone; and sending, from the aircraft, at least the user data and the temporary identification code (see col. 2, lines 52-65 and col. 6, lines 14-22 & 44-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 15-19, 21-24, and 26-30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horrer in view of Young.

Regarding claim 13 Horrer teaches a method for forwarding incoming cellular communications to an aircraft (see col. 2, lines 25-29 & 60-64). Horrer teaches receiving a request to divert incoming calls for a cellular telephone number to a communication system on board an aircraft, the request including at least a temporary identification code representing a cellular telephone aboard the aircraft (see col. 6, lines 35-58). Horrer teaches associating a diversion instruction with the cellular telephone number, the diversion instruction representing an instruction to forward an incoming call for the cellular telephone number to the communications system aboard the aircraft (see col. 6, lines 25-52). Horrer teaches wherein, an incoming telephone call to the cellular telephone number is forwarded, consistent with and in accordance with the diversion instruction, to the communication system on board the aircraft (see col. 6, lines 38-58). Horrer does not specifically teach considering a state of a cellular telephone associated with the cellular phone number as busy, regardless of an actual state of the cellular telephone. Young teaches considering a state of a telephone as busy, regardless of an actual state of the telephone (see col. 16, lines 7-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include considering a state of a cellular telephone associated with the cellular phone number as busy, regardless of an actual

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state of the cellular telephone because this would allow for improved communications between a ground station and a cellular station located on a moving object.

Regarding claim 15 Horrer teaches the communication system on board the aircraft is a communication device in wireless communication with a cellular telephone aboard the aircraft (see col. 2, lines 52-65 and col. 4, lines 30-36).

Regarding claim 16 Horrer and Young teach a device as recited in claim 13 except for modifying a preset diversion instruction associated with the cellular telephone to include the communication system on board the aircraft. Horrer does teach a diversion instruction that includes a communications system on board the aircraft (see col. 6, lines 25-52). Young does teach modifying a preset instruction as necessary (see col. 12, lines 39-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include modifying a preset diversion instruction associated with the cellular telephone to include the communication system on board the aircraft because this would allow for more efficient communication for cellular station located on a moving object.

Regarding claim 17 Horrer teaches receiving an incoming call for a cellular telephone number and forwarding the incoming call to the communication system on board the aircraft (see col. 2, lines 52-65).

Regarding claim 18 Horrer teaches a cellular telephone having at least one original diversion instruction prior to associating a diversion instruction (see col. 2, lines 42-50). Horrer teaches receiving an incoming call for a cellular telephone number (see col. 6, lines 38-42). Horrer teaches diverting the incoming call consistent with at least one original diversion instruction (see col. 6, lines 38-50). Horrer does not specifically teach diverting, in response to

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an actual state of a cellular telephone being busy. Young teaches diverting, in response to an actual state of a cellular telephone being busy (see col. 17, lines 5-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include diverting, in response to an actual state of a cellular telephone being busy because this would allow for improved communications between a ground station and a cellular station located on a moving object.

Regarding claim 19 Horrer teaches a method for routing incoming cellular telephone traffic through a land-based host network to cellular device aboard an aircraft, the cellular device user having an associated telephone number (see col. 6, lines 4-29). Horrer teaches receiving, at the host network, a request to register the presence of the cellular device user aboard the aircraft, the request including at least a temporary identification code representing a cellular telephone aboard the aircraft (see col. 3, lines 15-20 and col. 5, lines 8-25). Horrer teaches a host network communicating with a cellular device user's home network (see col. 4, lines 44-50). Horrer teaches a cellular device user that is within the operating jurisdiction of the host network (see col. 7, lines 11-21). Horrer teaches an instruction to divert an incoming call to a communication system on board an aircraft (see col. 6, lines 38-58). Horrer teaches wherein, upon receipt of an incoming telephone call to the cellular telephone number, the host forwards an incoming call to the communication system on board the aircraft (see col. 6, lines 38-58). Horrer does not specifically teach advising a cellular device user's home network, associating a primary divert on busy instruction with the cellular telephone number, the divert on busy instruction representing an instruction to divert an incoming call or considering the current operational state associated with the cellular telephone number as busy, regardless of an actual operational state of the

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cellular device. Young teaches associating a divert on busy instruction with a telephone, the divert on busy instruction representing an instruction to divert an incoming call (see col. 17, lines 5-10). Young teaches considering a state of a telephone as busy, regardless of an actual state of the telephone (see col. 16, lines 7-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include advising a cellular device user's home network, associating a primary divert on busy instruction with the cellular telephone number, the divert on busy instruction representing an instruction to divert an incoming call and considering the current operational state associated with the cellular telephone number as busy, regardless of an actual operational state of the cellular device because this would allow for improved communications between a ground station and a cellular station located on a moving object.

Regarding claim 21 Horrer and Young teach a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 22 Horrer and Young teach a device as recited in claim 16 and is rejected given the same reasoning as above.

Regarding claim 23 Horrer and Young teach a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 24 Horrer and Young teach a device as recited in claim 18 and is rejected given the same reasoning as above.

Regarding claim 26 Horrer teaches a method of registering to divert a telephone call to a cellular telephone onboard a vehicle (see col. 3, lines 15-30). Horrer teaches receiving first and second identification information, the first identification information being identifying the

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cellular telephone and the second information representing a temporary identification code assigned to the cellular telephone device (see col. 2, lines 30-33 & 52-65 and col. 3, lines 32-36 & 50-57). Horrер does not teach associating modified divert on busy instructions with the cellular telephone; or setting an indication of a status of the cellular telephone as busy regardless of an actual status of the cellular telephone. Young teaches associating a divert on busy instruction with a telephone (see col. 17, lines 5-10). Young teaches considering a state of a telephone as busy, regardless of an actual state of the telephone (see col. 16, lines 7-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include associating modified divert on busy instructions with the cellular telephone; and setting an indication of a status of the cellular telephone as busy regardless of an actual status of the cellular telephone because this would allow for improved communications between a ground station and a cellular station located on a moving object.

Regarding claim 27 Horrер teaches receiving a telephonic call intended for the cellular telephone (see col. 6, lines 38-42). Horrер teaches diverting the telephonic call to the cellular device on-board the vehicle (see col. 6, lines 38-42). Horrер does not specifically teach a modified divert on busy instruction. Young teaches associating a divert on busy instruction with a telephone (see col. 17, lines 5-10). Young does teach modifying a preset instruction as necessary (see col. 12, lines 39-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a modified divert on busy instruction because this would allow for efficient call routing between a moving target and a land based communications network.

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Regarding claim 28 Horrер and Young teach a device as recited in claim 26 except for receiving, associating and setting occur at a host network, the cellular device is associated with a home network different from the host network, and advising a home network that a cellular telephone is roaming within the coverage of a host network. Horrер does teach call diversion occurring at a host network, the cellular device is associated with a home network different from the host network (see col. 4, lines 44-56). Horrер does teach a host network communicating with a cellular device user's home network (see col. 4, lines 44-50). Horrер does teach a cellular device user that has moved within the operating jurisdiction of a host network (see col. 7, lines 11-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include receiving, associating and setting occur at a host network, the cellular device is associated with a home network different from the host network, and advising a home network that a cellular telephone is roaming within the coverage of a host network because this would allow for efficient call routing between a moving target and a land based communications network.

Regarding claim 29 Horrер teaches a method of receiving a telephone call placed to a cellular telephone that is aboard a vehicle (see col. 6, lines 4-29). Horrер teaches receiving a call forwarded from a home network, the call being placed to the cellular telephone; and forwarding the call to the cellular telephone consistent with the accessing (see col. 2, lines 30-40). Horrер does not specifically teach returning a busy signal for a cellular telephone regardless of an actual state of the cellular telephone or accessing a divert-on-busy instruction for the cellular telephone. Young teaches associating a divert on busy instruction with a telephone (see col. 17, lines 5-10). Young teaches considering a state of a telephone as busy, regardless of an actual state of the

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telephone (see col. 16, lines 7-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include returning a busy signal for a cellular telephone regardless of an actual state of the cellular telephone and accessing a divert-on-busy instruction for the cellular telephone because this would allow for improved communications between a ground station and a cellular station located on a moving object.

Regarding claim 30 Horrer and Young teach a device as recited in claim 29 except for advising the home network that the cellular device is roaming on a host network. Horrer teaches a host network communicating with a cellular device user's home network (see col. 4, lines 44-50). Horrer teaches a cellular device user that has moved within the operating jurisdiction of a host network (see col. 7, lines 11-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include advising the home network that the cellular device is roaming on a host network because this would allow for efficient call routing between a moving target and a land based communications network.

Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horrer in view of Young and Chambers.

Regarding claim 14 Horrer and Young teach a device as recited in claim 13 except for giving priority to an address of the communications system on board an aircraft over any previous diversion instruction. Horrer does teach associating a diversion instruction to an address of a communications system on board an aircraft (see col. 2, lines 30-40). Chambers teaches flag signal that has priority over any previous instruction (see pg. 6, 2nd paragraph and pg. 7, 3rd and 4th paragraphs). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include giving priority to an address of

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the communications system on board an aircraft over any previous diversion instruction because this would allow for users of a telecommunications network continual communication access in stationary or mobile positions.

Regarding claim 20 Horrер, Young, and Chambers teach a device as recited in claim 14 and is rejected given the same reasoning as above.

Response to Arguments

Applicant's arguments with respect to claims 13-30 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Lanzerotti U.S Patent No. 6,324,398 discloses a wireless telecommunications system having airborne base station.

Fukutomi U.S. Patent No. 5,842,132 discloses a mobile telecommunication method and system.


Capone et al. U.S. Patent No. 6,393,281 discloses a seamless hand-off for air-to-ground systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 9, 2004


WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600